

REMARKS/ARGUMENTS

Claims 1-23 are pending herein. New dependent claim 23 has been added as supported by Fig. 1 of the present application, for example.

Claims 1-22 were rejected under §103(a) over Kosaka in view of JP 56-24486 ('486). This rejection is respectfully traversed.

Claim 1 recites a gas separating device including a gas separator fixing structure provided with a gas separator having a gas separation membrane formed on at least one surface of a tubular support having a through hole in an axial direction and including porous ceramics, wherein a cap like metal member and a ring shaped metal member are compression fixed to one and the other open end of the glass separator through seal members, respectively, and the seal members are gland packings. Independent claims 4, 20 and 21 also recite, among other things, gland packings.

Fig. 7 of Kosaka discloses a gas separator 1 attached to alumina dense tubes 14 which are sealed to chamber 8 using traditional O-rings 13. Therefore, Kosaka fails to disclose any method of sealing between the hydrogen separator 1 and its mating parts, the alumina dense tubes 14. Furthermore, the chamber 18 is incapable of accepting a gland style seal, as recited in the pending claims.

Fig. 5 of JP '486 shows an O-ring seal 25 captured between an internally threaded cap 26 and an externally threaded post 22. Applicant respectfully submits that item 25 is not a gland packing. Gland packings require pressure on all sides of a cavity to generate a seal. Any gland packing will expand into an open space rather than exert pressure against the parts to be sealed. Accordingly, if item 25 is sealing in its present configuration, item 25 would necessarily have to be physically attached to item 24 as pressure is only exerted axially between externally threaded post 22 and internally threaded cap 26. Furthermore, because the cavity, created between internally threaded cap 26 and externally threaded post 22, necessarily contains threads, any gland type seal would have to be compressed by the internal threads of 26 and the exposed lower threads of externally threaded post 22. These two surfaces would likely fail to provide an adequate seal in a gland type arrangement since they

are uneven by the nature of their function. Therefore, JP '486 fails to overcome the deficiencies of Kosaka.

Independent claims 4, 20 and 21 recite, among other things, the use of gland seals to seal the tubular supports with respect to the gas separator fixing structure. As discussed in further detail above, Kosaka fails to teach the use of gland style seals between the tubular support and the gas separator fixing structure, and JP '486 additionally would have failed to teach one skilled in the art to use gland seals in place of the O-ring seals of Kosaka.

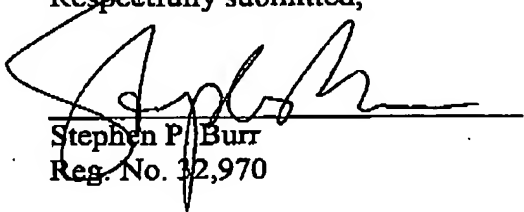
Applicant respectfully submits that the arguments submitted above distinguish claims 1, 4, 20 and 21 from Kosaka. Since JP '486 does not overcome the deficiencies of Kosaka, and since claims 2-19 and 22-23 depend either directly or indirectly from claims 1, 4, 20 and 21, those claims are also believed to be allowable over the applied art.

If the Examiner believes that contact with Applicant's attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicant's attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

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Date

Respectfully submitted,


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